UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,115	09/27/1999	LARRY W. FULLERTON	1659.0800000	2312

26694 7590 12/19/2003

VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

EXAMINER	
SHELEHEDA, JAMES R	

ART UNIT	PAPER NUMBER
2614	10

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary	Application No.	Applicant(s)	
	09/407,115	FULLERTON ET AL.	
	Examiner	Art Unit	
	James Sheleheda	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 2-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 2-18 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 September 1999 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. New corrected drawings are required in this application. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

2. Claims 5-7 are objected to because of the following informalities: These claims are all dependent upon the canceled claim 1. It is assumed that these claims are meant to be dependent upon claim 2. In claims 5-7, line 1, "claim 1" should be changed to –claim 2--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 3, 5-9 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton et al. (Hylton)(5,613,191) in view of Fullerton (5,687,169).

As to claim 2, Hylton discloses a system comprising: a **tuner** (Fig. 8, 512) adapted to receive a signal (column 29, lines 19-22), a **video display** (TV1) physically separate from the tuner (see Fig. 8), a first **transceiver** (516 and 530, column 30, lines 61-64), coupled to the tuner (column 29, lines 27-30), to wirelessly transmit the signal received by the tuner (column 29, lines 27-46) to a second transceiver (Transceiver/DET 508) (column 33, lines 66-67 and column 34, lines 1-9); wherein the **second transceiver** is coupled to the video display (column 29, lines 15-18) and **receives** the signal transmitted by the first transceiver (column 31, lines 20-36) to thereby **drive** the video display using the received signal (column 32, lines 31-33). While Hylton discloses the use of spread spectrum radio transceivers (column 29, lines 27-35), he fails to disclose the use of time modulated ultra-wideband (also known as impulse radio) transceivers.

Fullerton discloses the use of impulse radio (or TM-UWB) transceivers in wireless communication applications (column 4, lines 19-21) for the advantage of using transceivers which are simpler and less costly then those which utilize spread spectrum. (column 4, lines 26-44).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hylton's system to include the use of a impulse radio (or TM-UWB), as taught by Fullerton, for the advantage of using transceivers which are simpler and less costly then those which utilize spread spectrum.

As to claim 3, Hylton and Fullerton disclose wherein the first TM-UWB transceiver is adapted to transmit the signal as a time modulated ultra-wideband (or impulse radio) impulse signal (see Fullerton at lines 1-5 of the Abstract).

As to claim 5, Hylton and Fullerton disclose wherein the signal comprises a digital video signal (see Hylton at column 29, lines 19-25).

As to claim 6, Hylton and Fullerton disclose wherein the signal comprises a analog video signal (see Hylton at column 29, lines 25-28).

As to claim 7, Hylton and Fullerton disclose wherein the signal comprises an audio/video signal (see Hylton at column 31, lines 29-36).

As to claim 8, Hylton and Fullerton disclose wherein a speaker, coupled to the second TM-UWB transceiver, that is driven by the signal received by the second TM-UWB transceiver (wherein a television set inherently contains a speaker, see Hylton at column 32, lines 31-33).

As to claim 9, Hylton discloses in a system including a **tuner** (Fig. 8, 512) coupled to a first transceiver (column 29, lines 27-30) and a **video display** physically separate from the tuner (see Fig. 8, TV1), the video display coupled to a second

transceiver (column 29, lines 15-18), a method comprising the steps of: **receiving** a signal at the tuner (column 29, lines 19-22), **transmitting** the signal from the first transceiver to the second transceiver (column 29, lines 27-46, column 33, lines 66-67 and column 34, lines 1-9), **receiving** the signal at the second transceiver (column 33, lines 66-67 and column 34, lines 1-9), and **driving** the display (column 32, lines 31-33) with the signal received at the second transceiver (column 31, lines 20-28). While Hylton discloses establishing a wireless link between spread spectrum radio transceivers (column 29, lines 27-35), he fails to disclose linking time modulated ultra-wideband (or impulse radio) transceivers that transmit the signals as TM-UWB impulse signals.

Fullerton discloses the use of impulse radio (or TM-UWB) transceivers in wireless communication applications (column 4, lines 19-21), wherein the signals are transmitted as TM-UWB impulse signals (see Fullerton at lines 1-5 of the Abstract), for the advantage of using transceivers which are simpler and less costly then those which utilize spread spectrum (column 4, lines 26-44).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hylton's system to include the wireless linking of impulse radio (or TM-UWB) transceivers, wherein the signals are transmitted as TM-UWB impulse signals, as taught by Fullerton, for the advantage of using transceivers which are simpler and less costly then those which utilize spread spectrum.

As to claim 11, Hylton and Fullerton disclose wherein the signal comprises a digital video signal (see Hylton at column 29, lines 19-25).

As to claim 12, Hylton and Fullerton disclose wherein the signal comprises a analog video signal (see Hylton at column 29, lines 25-28).

As to claim 13, Hylton and Fullerton disclose wherein the signal comprises an audio/video signal (see Hylton at column 31, lines 29-36).

As to claim 14, Hylton and Fullerton disclose wherein a speaker, coupled to the second TM-UWB transceiver, that is driven by the signal received by the second TM-UWB transceiver (wherein a television set inherently contains a speaker, see Hylton at column 32, lines 31-33).

As to claim 15, Hylton and Fullerton disclose the step of establishing a full duplex wireless communication link between the first TM-UWB transceiver and the second TM-UWB transceiver (see Fullerton at column 9, lines 56-65 or see Hylton at column 30, lines 49-64) prior to transmitting the signal from the first TM-UWB transceiver to the second TM-UWB transceiver (see Fullerton at column 10, lines 43-67 and column 11, lines 1-9 or see Hylton at column 29, lines 36-44).

As to claim 16, Hylton and Fullerton disclose wherein the wireless communication link supports a broadband connection (higher) from the first transceiver to the second transceiver and a narrowband connection (lower) from the second transceiver to the first transceiver (see Hylton at column 34, lines 2-7).

As to claim 17, Hylton and Fullerton disclose the steps of: **receiving** an information source identifier from a user (programming channel, see Hylton at column 33, lines 1-3), **transmitting** the information source identifier from the second TM-UWB transceiver to the first TM-UWB transceiver via the wireless communication link (see Hylton at column 30, lines 54-67, column 34, lines 31-34, column 35, lines 62-67 and column 36, lines 1-4), **receiving** the signal at the tuner from a source identified by the information source identifier (column 29, lines 19-22), and **transmitting** the signal from the first TM-UWB transceiver to the second TM-UWB transceiver via the wireless communication link (column 29, lines 27-46, column 33, lines 66-67 and column 34, lines 1-9).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton and Fullerton as applied to claim 2 above, and further in view of Schultheiss et al. (Schultheiss)(6,545,722).

As to claim 4, while Hylton and Fullerton disclose the wireless distribution of video throughout a user's premises (column 3, lines 34-36), they fail to specifically

disclose wherein the tuner and the video display are separated from one another by at least one wall.

Schultheiss discloses a wireless video distribution system wherein a computer tuning to Internet video and a wireless television receiver, which receives the video, are located in different rooms or floors of a users home (column 2, lines 33-37) for the typical advantage of allowing the user to conveniently receive the video signals anywhere in their home.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hylton and Fullerton's system to include wherein the tuner and video display are separated from one another by at least one wall, at taught by Schultheiss, for the typical advantage of allowing the user to conveniently receive the video signals anywhere in their home.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton and Fullerton as applied to claim 9 above, and further in view of Ghori et al. (Ghori)(6,282,714).

As to claim 10, while Hylton and Fullerton disclose transmitting signals, received at the tuner, from the first TM-UWB transceiver to a second TM-UWB transceiver, they fail to specifically disclose the compressing of the received signals prior to transmission and the decompressing of the signals prior to driving a display.

Ghori discloses a wireless video distribution system (abstract, lines 1-13) wherein a computer compresses a signal prior to wireless transmission (column 10, lines 38-45)

and the receiver then decompresses the signal prior to viewing (column 13, lines 41-53) for the typical advantage of utilizing less bandwidth during wireless transmission.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hylton and Fullerton's system to include the compressing of received signals prior to transmission and the decompressing of the signals prior to driving a display, as taught by Ghori, for the typical advantage of utilizing less bandwidth during wireless transmission.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hylton and Fullerton as applied to claim 9 above, and further in view of Sarkar et al. (Sarkar)(US2003/0058828).

As to claim 18, while Hylton and Fullerton disclose the transmitting of signals from the second TM-UWB transceiver to the first TM-UWB transceiver via the wireless communications link (see Hylton at column 30, lines 54-64) they fail to disclose the transmitting of control signals to maintain the link quality of the wireless communications link.

Sarkar discloses the compiling of quality measurements of a wireless link and the transmitting of power control messages to maintain wireless link quality by adjusting transmission power levels (paragraphs 21-24) for the typical advantage of maintaining a high quality wireless transmission.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Hylton and Fullerton's method to include the

transmitting of control signals to maintain the link quality of the wireless communications link, as taught by Sarkar, for the typical advantage of maintaining a high quality wireless transmission.

Conclusion

8. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on _____.
(Date)

Typed or printed name of person signing this certificate:

_____

Signature: _____

Certificate of Transmission

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703)_____ - _____ on _____.
(Date)

Typed or printed name of person signing this certificate:

Signature: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the primary examiner, Chris Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-HELP.

James Sheleheda
Patent Examiner
Art Unit 2614

JS

CHRIS GRANT
PRIMARY EXAMINER